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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,055	04/16/2004	Garth Meier	MEIE-003P	9461

7590 01/30/2009

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EXAMINER	
SZNAIDMAN, MARCOS L	
ART UNIT	PAPER NUMBER
1612	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/826,055	MEIER ET AL.	
	Examiner	Art Unit	
	MARCOS SZNAIDMAN	1612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *10-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to applicant's reply filed on November 13, 2008.

Election/Restrictions

Applicant's election of Group I (Claims 1-9) and the following species: fertilizers as the active agent in the reply filed on November 13, 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a).

However, upon examiner reconsideration, the requirement for all species election is withdrawn; consequently all species are being considered for this examination.

Status of Claims

Claims 1-20 are currently pending and are the subject of this office action.

Claims 10-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention/species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on November 13, 2008.

Claims 1-9 are presently under examination.

Priority

The present application claims priority to provisional application No. 60/496,222 filed on 08/19/2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2, 5 and 7-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Knsel et. al. (Environ. Sci. Technol. (2003, May 15) 37: 2267-2273).

Claims 1-2, and 5 recite an active agent delivery system for storing and controllably releasing active agents to a site of delivery, which comprises an ice block delivery device comprising one or more active agents frozen in ice, wherein the active agents can be pesticides, fertilizers, therapeutic agents, vitamins, minerals, supplements, etc (see claim 2), wherein the ice block delivery device is in the form of a block of ice (claim 5).

For claims 1-2 and 5 Knsel teaches a continuous ice-core melting device coupled to a mass spectrometer (see abstract and Figure 2 page 2268). The ice is in a form of a block and contains several minerals like Li, Na, Mg, Ca, Mn, etc (see abstract). The system stores and controllably releases the active agents (minerals) to the site of delivery (mass spectrometer).

Claim 7, further comprises an applicator, the applicator comprising an enclosure for holding the ice block delivery device and an outlet means for controllably delivering melted ice and active agents to the site of delivery. Claim 8 recites the same limitations as claim 7, wherein the outlet means is selected from the group consisting of holes, a screen, mesh, a permeable membrane, and an in-ground applicator.

For claims 7 and 8, Knsel further teaches and enclosure for holding the ice block delivery device consisting of a filter before the melting head (see Figure 2) and an outlet means for controllably delivering melted ice and active agents (e.g. minerals) to the site of delivery (mass spectrometer) consisting of HPLC columns and filters which have different mesh sizes and holes (see page 2268 under Continuous Ice Melting Device).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Golinets (CAS accession # 1986-143055 corresponding to SU 1189374).

Claims 1-2, 4 and 5 recite an active agent delivery system for storing and controllably releasing active agents to a site of delivery, which comprises an ice block delivery device comprising one or more active agents frozen in ice, wherein the active agents can be pesticides, fertilizers, therapeutic agents, vitamins, minerals,

supplements, etc (see claim 2), wherein the active agent is a fertilizer (claim 4), or wherein the ice block delivery device is in the form of a block of ice (claim 5).

For claims 102, 4-5 and 7-9 Golinets teaches a device capable of storing fertilizer in an ice-block and delivering to the soil in a controlled fashion (see abstract).

Claims 7-9 further limit claim 1, wherein the active agent delivery system further comprises an applicator, wherein the applicator is an in-ground applicator (claim 9).

For claims 7-9, Golinets further teaches a drain pipe (an in-ground applicator) to apply the fertilizer into the ground (see abstract).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knsel et. al. (Environ. Sci. Technol. (2003, May 15) 37: 2267-2273) as applied to claims 1-2, 5, and 7-8, and further in view of Dowel et. al. (US 6,037,587) and Villa et. al. (CAS accession # 2002:73442, corresponding to Transport and Chemical Transformation in the Troposphere, Proceedings of EUROTRAC Symposium, 6th, Garmisch-Partenkirchen, Germany, Mar. 27-31 (2000), 876-879).

Claims 3 further limits claim 1, wherein the active agent is a pesticide.

Knsel teaches all the limitations of claim 3, except for the specific active agent pesticide. However, Dowel teaches that pesticides are commonly analyzed by mass spectrometry (see Figures 3 and 4 and column 4, under brief description of the

drawings, under Figures 3 and 4) and Villa teaches that pesticides are analyzed from Glacier samples (see abstract).

At the time of the invention it would have been *prima facie* obvious for a person of ordinary skill in the art to combine the teachings of Knsel, Dowel and Villa, and have a block of ice with a pesticide as the active agent (as taught by Villa), instead of a mineral (as taught by Knsel), and analyze the pesticide contents of the ice block with a mass spectrometer as taught by Dowel, thus resulting in the practice of claim 3 with a reasonable expectation of success.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knsel et. al. (Environ. Sci. Technol. (2003, May 15) 37: 2267-2273) as applied to claims 1-2 and 5.

Claim 6, further limits claim 1, wherein the ice block delivery device is in the form of ice cubes.

Knsel teaches all the limitations of claim 6, except for the ice cubes. However, since Knsel teaches that the ice block delivery device is in the form of a block of ice, at the time of the invention it would have been *prima facie* obvious for a person of ordinary skill in the art to use ice in any form, like ice cubes (see claim 6), thus resulting in the practice of claim 6 with a reasonable expectation of success.

Conclusion

No claims are allowed.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARCOS SZNAIDMAN whose telephone number is (571)270-3498. The examiner can normally be reached on Monday through Thursday 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frederick F. Krass can be reached on 571-272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARCOS SZNAIDMAN/
Examiner, Art Unit 1612
January 22, 2008

/Brandon J Fetterolf/

Primary Examiner, Art Unit 1642